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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/058,029

Applicant(s)

SASAKI, YOSHIYUKI

Examiner

Jorge L. Ortiz-Criado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/18/2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims newly recite the limitation “determining that the first rotation mode is not suitable for writing the user data in response to receipt of user request”. The examiner cannot ascertain/map where in the specification including the detailed description and the drawings, support is found. The only description found relating the rotation suitable for storing is in that the controller checks whether the disc is rotating at a speed corresponding to the speed of storage and reproduction designated by the user request, and the controller controls and changes the rotation speed of the spindle motor through a rotation control unit (See for example Figure. 6 step S3 and description on page 16 lines 6-24. No determination if a first mode is or is not suitable for recording/reproducing is found. Hence, the new limitation represents new matter added to the claims.

For purpose of examination the claims are interpreted with their broadest reasonable interpretation in light of the supporting disclosure.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 8, 9, and 16 -18 are rejected under 35 U.S.C. 102(b) as anticipated by Hashimoto U.S. patent No. 6,172,955.

Regarding claims 1 and 18, Hashimoto discloses in an information storage apparatus capable of rotating a recording medium in a plurality of rotation modes, a method and “computer program”(See col. 12, lines 3-12), of storing data the recording medium the method comprising (See col. 6, lines 12-62; Figure 1 ref# 5 “rotation control system”):

background-formatting the recording medium in “a first rotation mode” suitable for the background-formatting (interpreted as any rotation mode/speed/velocity which the rotation control system provides to rotates the disk that allows the storage apparatus to perform the formatting) inherently has to be suitable for background-formatting in order to perform the process of background-formatting”) (See col. 8, lines 20-57; Fig.5; Steps S12),

receiving a user request for writing user data in the recording during the background-formatting (Fig.5; Steps S13);

“determining that the first rotation modes is not suitable for writing the user data in response to receipt of the user request: (during the background formatting for writing user data in the recording medium/checks whether the disc is rotating at a speed corresponding to the speed of storage and reproduction designated by the user request (e.g. single 1x, double 2x etc...)”(See col. 6, lines 12-62; Figure 1 ref# 5 “rotation control system, controls the rotation of the disk at any rotation mode/speed/velocity at the time of recording/reproducing, inherently has to be suitable for recording/reproducing in order to perform these processes of recording/reproducing”);

when is determined that the first rotation mode is not suitable for writing the user data, rotating the recording medium in a second rotation mode and writing the user data to the recording medium (See col. 6, lines 12-62; Figure 1 ref# 5; col. 8, lines 20-57; Fig. 5, steps S14)

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“rotation control system checks whether the disc is rotating at a speed corresponding to the speed of storage and reproduction designated by the user request, rotation control system, controls the rotation of the disk at any rotation mode/speed/velocity at the time of recording/reproducing, subsequently, if the background-formatting has not been completed, resuming the background-formatting in the first rotation mode after writing the user data to the recording medium (stopping recording and stop rotation at the suitable rotation mode for recording and start rotating again to perform formatting at the time of resuming; “a first rotation mode”/(any rotation mode/speed/velocity which the rotation control system provides to rotates the disk and “a first rotation mode”/suitable for the background-formatting(any rotation mode/speed/velocity which the rotation control system provides to rotates the disk) inherently has to be suitable for background-formatting in order to perform these processes of background-formatting ”) (See col. 8, lines 20-57; Fig. 5, steps S15).

(Note: first rotation mode and second rotation mode as claimed could be the same and are not limited to any specific and/or no difference is made between the first rotation mode or the second mode; the first rotation mode might be suitable for recording as well, since either the first or the second rotation might be any rotation mode/speed/velocity etc., the claims are interpreted in light of the specification, limitations from the specification are not read into the claims).

Regarding claims 8 and 16, Hashimoto discloses wherein said recording medium is a rewritable optical disc (See col. 6, lines 3-5).

Regarding claims 9 and 17, Apparatus claims 9 and 17 are drawn to the apparatus of performing the corresponding method claimed in claim 1. Therefore apparatus claims 9 and 17 correspond to method claim 9 and are rejected for the same reasons of anticipation as used above.

Regarding claim 21, 23 and 24, Hashimoto discloses wherein said recording comprises a "DVD+RW" recording medium (a rewritable optical disc, See col. 1, lines 10-14; col. 6, lines 3-5).

6. Claims 2,10, 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto U.S. patent No. 6,172,955 in view of Horie J.P. Publication No. 2000-011380.

Hashimoto discloses all the limitations based on claim 1 and 9, as outlined above.

Hashimoto fails to disclose wherein said recording medium formatted in a first rotation mode that comprises a first speed; said second rotation mode comprises a second speed; and said second speed is different from said first speed and further said first rotation mode is (first speed) is rotated at a maximum rotating speed at which said information storage apparatus can store data in said recording medium.

However this feature is well known in the art as evidenced by Horie, which discloses an information storage apparatus and method for storing data in recording medium using an information storage apparatus, which has a plurality of rotation modes of said recording medium comprising a controller which formats said recording medium in a first rotation mode and sets the recording medium in a second rotation mode that is suitable for storing data, stores data in

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said recording medium in said second rotation mode and wherein said recording medium formatted in said first rotation mode is rotated at a maximum rotating speed at which said information storage apparatus can store data in said recording medium (See detailed description [0018]-[0029]; [0036]-[0038]; [0041]-[0042]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to rotate the medium at different speed and specifically that the first rotation mode/speed at a maximum rotating speed at which said information storage apparatus can store data in said recording medium in order to reduce amount of time that it takes to format the recording medium, as suggested by Horie.

7. Claims 3-4, and 11-12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto U.S. patent No. 6,172,955 in view of Shirane J.P. Publication No. 07-262692.

Regarding claims 3 and 11, Hashimoto discloses all the limitations based on claim 1 and 9, as outlined above.

Hashimoto fails to disclose wherein said recording medium formatted in said first rotation mode is a constant linear velocity mode.

However, this feature is well known in the art as evidenced by Shirane, which discloses formatting a disk at a constant linear velocity to be reproduced in a storage apparatus, which has a plurality of rotation modes (See detailed description [0016]; [0021]-[0031]; [0082]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to format the recording medium at a first rotation mode of constant linear velocity in order to increase the storage capacity of the recording medium, as suggested by Shirane.

Regarding claims 11 and 12, Hashimoto discloses all the limitations based on claim 1 and 9, as outlined above.

Hashimoto fails to disclose wherein said recording medium formatted in said first rotation is a zone constant linear velocity mode.

However, this feature is well known in the art as evidenced by Shirane, which discloses formatting a disk at a zone constant linear velocity to be reproduced in a storage apparatus, which has a plurality of rotation modes (See detailed description [0016]; [0021]-[0031]; [0082]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to format the recording medium at a first rotation mode of zone constant linear velocity in order to increase the storage capacity of the recording medium and at the same time obtain a high speed access, as suggested by Shirane.

8. Claims 5-7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto U.S. patent No. 6,172,955 in view of Seamons et al. U.S. Patent No. 4,924,327.

Hashimoto discloses all the limitations based on claim 1 and 9 as outlined above.

Hashimoto further discloses a step in response to an end of storing data in said recording medium, wherein said step of resuming of formatting said recording medium in "said second

rotation/first rotation”(first mode equals second mode; see Note above in claim 1) mode (See col. 8, lines 20-57; Fig. 5, steps S15).

Hashimoto does not expressly disclose a step of measuring time and the step of resuming formatting is not performed until a predetermined period of time passes.

However, this feature is well known in the art as evidenced by Seamons et al., which discloses a method and an apparatus to perform the method for storing data in recording medium using an information storage apparatus including a step of formatting said recording medium; a step of stopping, in response to a request for storing data in said recording medium, formatting of said recording medium; a step of storing data in said recording medium; a step of setting, in response to an end of storing data in said recording medium, said recording medium in said rotation mode; and a step of resuming of formatting said recording medium. (See col. 5, lines 26-46).

(as in claims 5 and 13) a step of measuring time, in response to an end of storing data in said recording medium, wherein said step of resuming of formatting said recording medium is not performed until a predetermined period of time passes (See col. 5, lines 36-45).

(as in claims 6 and 14) a step of measuring time, in response to an end of storing data in said recording medium, wherein formatting said recording medium is resumed in before a predetermined period of time passes (See col. 5, lines 45-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to resume formatting after a predetermined period of time as taught by Seamons et al., because waiting the period of time allows the system to process addition recording requests.

Furthermore, it would have been obvious to resume formatting before the predetermined period of time passes as taught by Seamons et al., because doing so allows the apparatus to start formatting if no formatted space is available for storing data.

Regarding claims 7 and 15, the combination of Hashimoto with Seamons et al., would show wherein after said predetermined period of time passes, said recording medium is set in said first rotation mode (Still rotating at second rotation mode to perform formatting) "said second rotation/first rotation"(If first mode equals second mode see Note above in claim 1)

resuming of formatting said recording medium in said "first rotation mode" (See Hashimoto col. 8, lines 20-57; Fig. 5, steps S15).

Response to Arguments

9. Applicant's arguments filed 10/17/2006 have been fully considered but they are not persuasive.

An applicant argues that in view of the amendment the rejection under 112 first paragraph should be withdrawn.

The Examiner still cannot Ascertain/Map where in the specification including the disclosure, support is found. The only description found relating the "rotation suitable" for storing, is in that the controller checks whether the disc is rotating at a speed corresponding to the speed of storage and reproduction designated by the USER Request (emphasis added), and the controller controls and changes the rotation speed of the spindle motor through a rotation

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control unit See for example Figure. 6 step S3 and Detailed Description on PAGE 16 lines 6-24.

NO determination if a first mode is suitable for recording/reproducing is found. Hence, the limitation represents new matter added to the claims.

Applicant argues that Hashimoto does not disclose determining that the first rotation mode is not suitable for writing the user data.

The examiner cannot concur because the only description found relating the rotation suitable for storing is in that the controller checks whether the disc is rotating at a speed corresponding to the speed of storage and reproduction designated by the user request, and the controller controls and changes the rotation speed of the spindle motor through a rotation control unit See for example Figure. 6 step S3 and description on page 16 lines 6-24.

Hashimoto in response to the user request checks whether the disc is rotating at a speed corresponding to the speed of storage and reproduction designated by the user request” (See col. 6, lines 12-62; Figure 1 ref# 5 “rotation control system, controls the rotation of the disk at any rotation mode/speed/velocity at the time of recording/reproducing, inherently has to be suitable for recording/reproducing/ in order to perform these processes of recording/reproducing”), as well, the rotation control system controls the rotation of the disk to rotates the disk at any rotation mode/speed/velocity, which inherently has to be suitable for background-formatting/ etc... in order to perform the process of background-formatting / etc...”).

Applicant argues that there is no inherency in change of speed. However there is no speed change being claimed. The first rotation mode and second rotation mode as claimed could be the same and are not limited to any specific, and/or no difference is made between the first rotation mode or the second mode; the first rotation mode might be suitable for recording as well, since

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either the first or the second rotation might be any rotation mode/speed/velocity etc., the claims are interpreted in light of the specification, limitations from the specification are not read into the claims

Furthermore, Applicants admits that Hashimoto discloses recording at a double recording speed at col. 2, lines 35-37, which recites "if the recording is performed at double speed", hence at least two speeds are recognized double 2X and single 1X. Therefore, Hashimoto can further change the speed to be double or single, because if is possible to record at double speed it is understood that at single speed also can be performed or requested by the user.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(12:30 pm- 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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TAN DINH
PRIMARY EXAMINER

2/05/07